

ABSTRACT

An integrated heat exchange and fluid control device is provided having an inlet, a valve, a heat exchange section in fluid connection with the valve, a bypass section in fluid connection with the valve, and an outlet section in fluid communication with the bypass section and the heat exchange section. The valve is configured to distribute flow of the coolant into the heat exchange system and/or the bypass section. In the heat exchange sections, coolant is substantially cooled by a second fluid or airflow. In the bypass section, the coolant is substantially prevented from being cooled by the second fluid or airflow.